	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	93	arsacs	USPAT; US-PGPUB; EPO; DERWENT	2002/05/21 12:05			0
2	BRS	L2	3	spastin	USPAT; US-PGPUB; EPO; DERWENT	2002/05/21 12:09			0
3	BRS	L3	1	1 same human same gene	USPAT; US-PGPUB; EPO; DERWENT	2002/05/21 12:09			0

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(FILE 'HOME' ENTERED AT 12:11:48 ON 21 MAY 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
12:12:16 ON 21 MAY 2002
L1 55 S ARSACS
L2 134 S SPASTIN
L4 37 S L2 (P) HUMAN (P) GENE
L5 30 DUPLICATE REMOVE L4 (7 DUPLICATES REMOVED)

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	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	80090	nucleic adj acid	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:50			0
2	BRS	L2	8638	exon	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:50			0
3	BRS	L3	444642	vertebrate or human	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:51			0
4	BRS	L4	37781	(vertebrate or human) same gene	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:52			0
5	BRS	L5	664	1 same 2 same 3	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:52			0
6	BRS	L6	35	"1150" adj base adj pairs	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:57			0
7	BRS	L7	1	5 same 6	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:59			0
8	BRS	L8	488	"1000" adj base adj pairs	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:55			0
9	BRS	L9	2	5 same 8	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:56			0
10	BRS	L10	275	"2000" adj base adj pairs	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:58			0
11	BRS	L11	1	5 same 10	USPAT; US-PGPUB; EPO; DERWENT	2002/06/11 15:59			0

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FILE 'AGRICOLA' ENTERED AT 12:12:16 ON 21 MAY 2002

=> s arsacs
L1          55 ARSACS

=> s spastin
L2         134 SPASTIN

=> s l2 (p) human same gene
   4 FILES SEARCHED...
L3           0 L2 (P) HUMAN SAME GENE

=> s l2 (p) human (p) gene
   4 FILES SEARCHED...
L4          37 L2 (P) HUMAN (P) GENE

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DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L4
L5          30 DUPLICATE REMOVE L4 (7 DUPLICATES REMOVED)

=> d l5 1-10 ibib abs

L5   ANSWER 1 OF 30     MEDLINE                          DUPLICATE 1
ACCESSION NUMBER:   2002083129     MEDLINE
DOCUMENT NUMBER:    21668226   PubMed ID: 11809724
TITLE:              Spastin, the protein mutated in autosomal dominant
                    hereditary spastic paraplegia, is involved in microtubule
                    dynamics.
AUTHOR:             Errico Alessia; Ballabio Andrea; Rugarli Elena I
CORPORATE SOURCE:   Telethon Institute of Genetics and Medicine (TIGEM), II
                    University of Naples, Naples, Italy.
CONTRACT NUMBER:    1R01NS38713-01 (NINDS)
SOURCE:             HUMAN MOLECULAR GENETICS, (2002 Jan 15) 11 (2) 153-63.
                    Journal code: 9208958. ISSN: 0964-6906.
PUB. COUNTRY:       England: United Kingdom
                    Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200205
ENTRY DATE:         Entered STN: 20020128
                    Last Updated on STN: 20020508
                    Entered Medline: 20020507
AB   Hereditary spastic paraplegia (HSP) is characterized by progressive
     weakness and spasticity of the lower limbs, caused by the specific
     degeneration of the corticospinal tracts, the longest axons in
       ***humans***  . Most cases of the autosomal dominant form of the disease
     are due to mutations in the SPG4   ***gene***  , which encodes
       ***spastin***  , an ATPase belonging to the AAA family. The cellular
     pathways in which   ***spastin***   operates and its role in causing
     degeneration of motor axons are currently unknown. By expressing wild-type
     or ATPase-defective   ***spastin***   in several cell types, we now show
     that   ***spastin***   interacts dynamically with microtubules.
       ***Spastin***   association with the microtubule cytoskeleton is mediated
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by the N-terminal region of the protein, and is regulated through the ATPase activity of the AAA domain. Expression of all the missense mutations into the AAA domain, which were previously identified in patients, leads to constitutive binding to microtubules in transfected cells and induces the disappearance of the aster and the formation of thick perinuclear bundles, suggesting a role of ***spastin*** in microtubule dynamics. Consistently, wild-type ***spastin*** promotes microtubule disassembly in transfected cells. These data suggest that ***spastin*** may be involved in microtubule dynamics similarly to the highly homologous microtubule-severing protein, katanin. Impairment of fine regulation of the microtubule cytoskeleton in long axons, due to ***spastin*** mutations, may underlie pathogenesis of HSP.

L5 ANSWER 2 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:333420 BIOSIS
DOCUMENT NUMBER: PREV200100333420
TITLE: Novel mutation of the Spastin gene in familial spastic paraplegia.
AUTHOR(S): de Bantel, Astrid; McWilliams, Shona; Auysh, Davgadorj; Echol, Charles; Sambuughin, Nyamkhishig; Sivakumar, Kumaraswamy (1)
CORPORATE SOURCE: (1) Department of Neurology, Barrow Neurological Institute, St. Joseph's Hospital and Medical Center, 500 W. Thomas Rd., Suite No. 300, Phoenix, AZ, 85013: ksivakum@bng.chw.edu USA
SOURCE: Clinical Genetics, (May, 2001) Vol. 59, No. 5, pp. 364-365. print.
ISSN: 0009-9163.
DOCUMENT TYPE: Letter
LANGUAGE: English
SUMMARY LANGUAGE: English

L5 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:300914 CAPLUS
DOCUMENT NUMBER: 134:324718
TITLE: Identification of the spastin gene associated with autosomal recessive spastic ataxia of Charlevoix-Saguenay (ARSACS) and diagnostic detection of mutations
INVENTOR(S): Hudson, Thomas J.; Engert, James; Richter, Andrea
PATENT ASSIGNEE(S): Mcgill University, Can.; Hopital Sainte-Justine
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001029266	A2	20010426	WO 2000-US29130	20001020

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-160588P P 19991020
AB Isolated spastin genes and fragments thereof, as well as Spastin proteins and fragments thereof are disclosed. Also disclosed are altered forms of spastin, as well as methods for the diagnosis and treatment of neurodegenerative disease.

L5 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:185911 CAPLUS
DOCUMENT NUMBER: 134:232711
TITLE: Mammalian spastin gene SPG4 and cDNA and methods for detecting mutations associated with autosomal spastic paraplegia

INVENTOR(S): Weissenba[redacted] Jean; Hazan, Jamile
PATENT ASSIGNEE(S): Centre Na[redacted]onal De La Recherche Scientifiq[redacted] (Cnrs), Fr.
SOURCE: PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001018198	A1	20010315	WO 2000-FR2433	20000904
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2798138	A1	20010309	FR 1999-11097	19990903

PRIORITY APPLN. INFO.: FR 1999-11097 A 19990903

AB The invention concerns the identification and characterization of the ***human*** SPG4 ***gene*** coding for ***spastin*** , and some mutations thereof responsible for the most frequent form of autosomal dominant familial spastic paraplegia, the cloning and the characterization of ***human*** and mouse ***spastin*** cDNA and the corresponding proteins. The invention also concerns vectors, transformed cells and transgenic animals as well as diagnostic methods and kits. Thus, the ***human*** ***spastin*** ***gene*** SPG4 was cloned and mutations assocd. with autosomal dominant familial spastic paraplegia were identified. Primers and probes for detection of these mutations are provided. The cDNA encoding murine ***spastin*** was also cloned and sequenced.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:328011 BIOSIS
DOCUMENT NUMBER: PREV200100328011
TITLE: An atypical intronic deletion widens the spectrum of mutations in hereditary spastic paraplegia.
AUTHOR(S): Higgins, J. J. (1); Loveless, J. M.; Goswami, S.; Nee, L. E.; Cozzo, C.; De Biase, A.; Rosen, D. R.
CORPORATE SOURCE: (1) Center for Human Genetic Studies, Mid-Hudson Family Health Institute/Westchester Medical Center, 279 Main Street, Suite 202, New Paltz, NY, 12561: jhiggins@fpinstitute.org USA
SOURCE: Neurology, (June 12, 2001) Vol. 56, No. 11, pp. 1482-1485. print.
ISSN: 0028-3878.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Objective: To identify the genetic mutation responsible for autosomal dominant spastic paraplegia (HSP) in a large family with a "pure" form of the disorder. Background: The disease locus in most families with HSP is genetically linked to the SPG4 locus on chromosome 2p21-p22. Some of these families have mutations in the splice-site or coding regions of the spastin gene (SPAST). Methods: Linkage and mutational analyses were used to identify the location and the nature of the genetic defect causing the disorder in a large family. After the disease phenotype was linked to the SPG4 locus, all 17 coding regions and flanking intronic sequences of SPAST were analyzed by single-strand conformation polymorphism analysis (SSCP) and compared between affected and normal individuals. Direct sequencing and subcloning methods were used to investigate incongruous mobility shifts. Results: The genomic sequence of SPAST showed a heterozygous four-base pair deletion (delTAAT) near the 3' splice-site of exon three in all 11 affected individuals but not in 21 normal family members or in 50 unrelated controls (100 chromosomes). Conclusions: This study identifies an atypical intronic microdeletion in SPAST that causes HSP and widens the spectrum of genetic abnormalities that cause the disorder.

L5 ANSWER 6 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:38020 BIOSIS
DOCUMENT NUMBER: PREV200200038020

TITLE:. A second leaky splice-site mutation in the spastin gene.
AUTHOR(S): Svenson, Ingrid K. (1); Ashley-Koch, Allison E.; Pericak-Vance, Margaret A.; Marchuk, Douglas A. (1)
CORPORATE SOURCE: (1) Department of Genetics, Duke University Medical Center, Durham, NC USA
SOURCE: American Journal of Human Genetics, (December, 2001) Vol. 69, No. 6, pp. 1407-1409. http://www.journals.uchicago.edu/AJHG/home.html. print.
ISSN: 0002-9297.
DOCUMENT TYPE: Article; Letter
LANGUAGE: English

L5 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
ACCESSION NUMBER: 2001:499475 CAPLUS
DOCUMENT NUMBER: 136:116675
TITLE: Identification and expression analysis of spastin gene mutations in hereditary spastic paraplegia
AUTHOR(S): Svenson, Ingrid K.; Ashley-Koch, Allison E.; Gaskell, P. Craig; Riney, Travis J.; Cumming, W. J. Ken; Kingston, Helen M.; Hogan, Edward L.; Boustany, Rose-Mary N.; Vance, Jeffery M.; Nance, Martha A.; Pericak-Vance, Margaret A.; Marchuk, Douglas A.
CORPORATE SOURCE: Duke University Medical Center, Durham, NC, 27710, USA
SOURCE: American Journal of Human Genetics (2001), 68(5), 1077-1085
CODEN: AJHGAG; ISSN: 0002-9297
PUBLISHER: University of Chicago Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pure hereditary spastic paraplegia (SPG) type 4 is the most common form of autosomal dominant hereditary SPG, a neurodegenerative disease characterized primarily by hyperreflexia and progressive spasticity of the lower limbs. It is caused by mutations in the gene encoding spastin, a member of the AAA family of ATPases. We have screened the spastin gene for mutations in 15 families consistent with linkage to the spastin gene locus, SPG4, and have identified 11 mutations, 10 of which are novel. 5 Of the mutations identified are in noninvariant splice-junction sequences. Reverse transcription-PCR anal. of mRNA from patients shows that each of these 5 mutations results in aberrant splicing. 1 Mutation was found to be "leaky," or partially penetrant; i.e., the mutant allele produced both mutant (skipped exon) and wild-type (full-length) transcripts. This phenomenon was reproduced in in vitro splicing expts., with a minigene splicing-vector construct only in the context of the endogenous splice junctions flanking the splice junctions of the skipped exon. In the absence of endogenous splice junctions, only mutant transcript was detected. The existence of at least 1 leaky mutation suggests that relatively small differences in the level of wild-type spastin expression can have significant functional consequences. This may account, at least in part, for the wide ranges in age at onset, symptom severity, and rate of symptom progression that were reported to occur both among and within families with SPG linked to SPG4. In addn., these results suggest caution in the interpretation of data solely obtained with minigene constructs to study the effects of sequence variation on splicing. The lack of full genomic sequence context in these constructs can mask important functional consequences of the mutation.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:79748 BIOSIS
DOCUMENT NUMBER: PREV200200079748
TITLE: A large family with hereditary spastic paraparesis due to a frame shift mutation of the spastin (SPG4) gene: Association with multiple sclerosis in two affected siblings and epilepsy in other affected family members.
AUTHOR(S): Mead, S. H.; Proukakis, C.; Wood, N.; Crosby, A. H.; Plant, G. T. (1); Warner, T. T.
CORPORATE SOURCE: (1) University Department of Clinical Neurosciences, Royal Free and University College Medical School, Rowland Hill Street, Royal Free Campus, London, NW3 2PF: gordon@plant.globalnet.co.uk UK
SOURCE: Journal of Neurology Neurosurgery & Psychiatry, (December,

2001) Vol. 71, No. 6, pp. 788-791. print.
ISSN: 0022-30[illegible].
DOCUMENT TYPE: Article
LANGUAGE: English
AB Hereditary spastic paraparesis (HSP) is a clinically and genetically heterogeneous neurodegenerative disorder characterised by progressive lower limb spasticity and weakness. Some forms have been associated with white matter lesions and complex phenotypes. This study was prompted by the diagnosis of multiple sclerosis (MS) in two sisters from a large pedigree with hereditary spastic paraparesis. Twelve affected members of the extended family were examined (MRI and EEG were carried out and evoked potentials measured in five), and historical information was obtained from six affected deceased persons. The inherited disease phenotype was confirmed as autosomal dominant hereditary spastic paraparesis associated with epilepsy in four affected persons. None of the extended family had evidence of MS. Genetic analysis of the family has shown linkage to chromosome 2p and sequencing of the spastin gene has identified a 1406delT frameshift mutation in exon 10. This kindred demonstrates the clinical heterogeneity of HSP associated with spastin mutations. The possible relevance of the concurrence of HSP and MS in the sib pair is discussed.

L5 ANSWER 9 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 3
ACCESSION NUMBER: 2002:70255 BIOSIS
DOCUMENT NUMBER: PREV200200070255
TITLE: Characterization of the mouse orthologue of the ***human*** ***spastin*** ***gene*** to generate genetically engineered mouse models for autosomal dominant hereditary spastic paraplegia type 4 (SPG4.
AUTHOR(S): Schickel, J. (1); Boensch, D. (1); Klimpe, S.; Sudbrak, R.; Homanics, G. E.; Deufel, T. (1)
CORPORATE SOURCE: (1) Institut fuer Klinische Chemie und Laboratoriumsdiagnostik, FSU Jena, Jena Germany
SOURCE: American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 635. http://www.journals.uchicago.edu/AJHG/home.html. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English

L5 ANSWER 10 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:566013 BIOSIS
DOCUMENT NUMBER: PREV200100566013
TITLE: Two spastin isoforms are developmentally regulated in fetal and adult human brain.
AUTHOR(S): Pegoraro, E. (1); Molon, A. M. (1); Fassina, A.; Magalhaes, P.; Angelini, C. (1)
CORPORATE SOURCE: (1) Neurological/Psychiatric Sci, Univ Padova, Padova Italy
SOURCE: American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 601. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

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FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 12:12:16 ON 21 MAY 2002
L1 55 S ARSACS
L2 134 S SPASTIN
L3 0 S L2 (P) HUMAN SAME GENE
L4 37 S L2 (P) HUMAN (P) GENE

L5 · 30 DUPLICATE REMOVE [redacted] (7 DUPLICATES REMOVED) [redacted]

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FILE 'AGRICOLA' ENTERED AT 12:25:26 ON 21 MAY 2002

=> s spastin
L1 134 SPASTIN

=> s l1 (p) human (p) gene
5 FILES SEARCHED...
L2 37 L1 (P) HUMAN (P) GENE

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PROCESSING COMPLETED FOR L2
L3 30 DUPLICATE REMOVE L2 (7 DUPLICATES REMOVED)

=> d l3 11-30 ibib abs

L3 ANSWER 11 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:566010 BIOSIS
DOCUMENT NUMBER: PREV200100566010
TITLE: SPG4 (spastin) mutation screening in hereditary spastic paraparesis.
AUTHOR(S): Proukakis, C. (1); Comiskey, C. (1); Reid, E.; Wilkinson, P.; Rubinsztein, D.; Patton, M. A. (1); Warner, T. T.; Crosby, A. H. (1)
CORPORATE SOURCE: (1) Department of Medical Genetics, St George's Hospital Medical School, London, SW17 0RE UK
SOURCE: American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 600. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 12 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:566001 BIOSIS
DOCUMENT NUMBER: PREV200100566001
TITLE: Frequency of Spastin mutations in German pedigrees with hereditary spastic paraplegia.
AUTHOR(S): Klimpe, S. (1); Visbeck, A. (1); Boensch, D.; Hopf, H. C. (1); Deufel, T.
CORPORATE SOURCE: (1) Dept. of Neurology, Mainz Germany
SOURCE: American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 599. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 13 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:553370 BIOSIS
DOCUMENT NUMBER: PREV200100553370
TITLE: Identification of novel AAA genes as candidate genes for neurologic disorders.
AUTHOR(S): Hedera, P. (1); Zhao, X. (1); Fink, J. K. (1)
CORPORATE SOURCE: (1) Department of Neurology, University of Michigan, Ann Arbor, MI USA
SOURCE: American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 453. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 14 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:539518 BIOSIS
DOCUMENT NUMBER: PREV200100539518
TITLE: Different mutations in the spastin gene result in distinct electrophysiological phenotypes in patients with hereditary spastic paraplegia type 4 (SPG4.
AUTHOR(S): Boensch, D. (1); Schwindt, A. (1); Navratil, P. (1); Palm, D.; Klimpe, S. (1); Hazan, J.; Weiller, C.; Deufel, T. (1); Liepert, J.
CORPORATE SOURCE: (1) Institut fuer Klinische Chemie, Friedrich-Schiller Universitaet, Jena Germany
SOURCE: American Journal of Human Genetics, (October, 2001) Vol. 69, No. 4 Supplement, pp. 350. print.
Meeting Info.: 51st Annual Meeting of the American Society of Human Genetics San Diego, California, USA October 12-16, 2001
ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:207472 CAPLUS
DOCUMENT NUMBER: 135:342577
TITLE: A large Japanese SPG4 family with a novel insertion mutation of the SPG4 gene: a clinical and genetic study
AUTHOR(S): Namekawa, M.; Takiyama, Y.; Sakoe, K.; Shimazaki, H.; Amaike, M.; Niijima, K.; Nakano, I.; Nishizawa, M.
CORPORATE SOURCE: Department of Neurology, Jichi Medical School, Tochigi, 329-0498, Japan
SOURCE: Journal of the Neurological Sciences (2001), 185(1), 63-68
CODEN: JNSCAG; ISSN: 0022-510X
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We studied a large Japanese family with autosomal dominant pure hereditary spastic paraplegia (ADPHSP) clin. and genetically. To date, seven loci causing ADPHSP have been mapped to chromosomes 14q, 2p, 15q, 8q, 12q, 2q, and 19q. Among these loci, the SPG4 locus on chromosome 2p21-p22 has been shown to account for approx. 40% of all autosomal dominant hereditary spastic paraplegia (ADHSP) families. Very recently the SPG4 gene encoding a new member of the AAA (ATPases assocd. with diverse cellular activities) protein family, named spastin was identified. We found a novel insertion mutation (nt1272-1273insA) in exon 8 of the SPG4 gene in the present family. Our study is the first to confirm the causative mutation of the SPG4 gene in Japanese. Clin., it is noteworthy that the disease progression in the patients of this family was slow in spite of the late onset, and more than half of the patients showed severe constipation in addn. to pure spastic paraplegia.
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:413[illegible] CAPLUS
DOCUMENT NUMBER: 135:4033
TITLE: Phenotype of AD-HSP due to mutations in the SPAST gene: Comparison with AD-HSP without mutations
AUTHOR(S): McMonagle, P.; Byrne, P. C.; Fitzgerald, B.; Webb, S.; Parfrey, N. A.; Hutchinson, M.
CORPORATE SOURCE: Department of Neurology, St. Vincent's University Hospital, Dublin, Ire.
SOURCE: Neurology (2000), 55(12), 1794-1800
CODEN: NEURAI; ISSN: 0028-3878
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB "Pure" autosomal dominant hereditary spastic paraparesis (AD-HSP) is clin. and genetically heterogeneous. There are at least seven genetic loci with varying ages at onset and disability. The SPAST gene at the SPG4 locus on chromosome 2p is the major disease gene for AD-HSP. The aim was to investigate whether there are distinct clin. features among families with AD-HSP due to SPAST mutations compared with families excluded from SPG4. Nineteen families with "pure" AD-HSP were identified, and the clin. features of family members were compared using a std. protocol. With use of genetic studies, the families were divided into two groups for comparison: those with mutations in SPAST, the "mutation-pos." group, and those excluded from SPG4 on the basis of linkage studies, the "SPG4-excluded" group. Twenty-nine individuals from four families had mutations in SPAST, whereas 22 individuals from three families comprised the SPG4-excluded group; in 11 families, the pattern of linkage was unknown. In the one remaining family, no mutations were found despite strong linkage to SPG4. Different mutations were identified in the four SPAST pedigrees, but the clin. picture was similar in each. Comparison of the mutation-pos. group with the SPG4-excluded group revealed an older age at onset, more disability, more rapidly progressive paraparesis, and more cognitive impairment among affected individuals with SPAST mutations, not confounded by disease duration. Despite different mutations, SPAST families have a similar phenotype that can be distinguished from other genetic groups.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:869368 CAPLUS
DOCUMENT NUMBER: 134:278966
TITLE: Novel mutations in spastin gene and absence of correlation with age at onset of symptoms
AUTHOR(S): Hentati, A.; Deng, H. -X.; Zhai, H.; Chen, W.; Yang, Y.; Hung, W. -Y.; Azim, A. C.; Bohlega, S.; Tandan, R.; Warner, C.; Laing, N. G.; Cambi, F.; Mitsumoto, H.; Roos, R. P.; Boustany, R. -M.; Hamida, M. Ben; Hentati, F.; Siddique, T.
CORPORATE SOURCE: Department of Neurology, Northwestern University Medical School, Chicago, IL, 60611, USA
SOURCE: Neurology (2000), 55(9), 1388-1390
CODEN: NEURAI; ISSN: 0028-3878
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Autosomal dominant hereditary spastic paraplegia is genetically heterogeneous, with at least five loci identified by linkage anal. Recently, mutations in spastin were identified in SPG4, the most common locus for dominant hereditary spastic paraplegia that was previously mapped to chromosome 2p22. The authors identified five novel mutations in the spastin gene in five families with SPG4 mutations from North America and Tunisia and showed the absence of correlation between the predicted mutant spastin protein and age at onset of symptoms.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:806467 CAPLUS
DOCUMENT NUMBER: 134:235568
TITLE: Hereditary spastic paraplegia caused by mutations in

the SPG4 [redacted]ne
AUTHOR(S): Burger, J[redacted]chim; Fonknechten, Nuria; Hoelt[redacted]bein, Maria; Neumann, Luitgart; Bratanoff, Elfriede; Hazan, Jamile; Reis, Andre
CORPORATE SOURCE: Institute of Human Genetics, Humboldt-Universitat, Berlin, 13353, Germany
SOURCE: European Journal of Human Genetics (2000), 8(10), 771-776
CODEN: EJHGEU; ISSN: 1018-4813
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Autosomal dominant hereditary spastic paraplegia (AD-HSP) is a genetically heterogeneous neurodegenerative disorder characterized by progressive spasticity of the lower limbs. The SPG4 locus at 2p21-p22 accounts for 40-50% of all AD-HSP families. The SPG4 gene was recently identified. It is ubiquitously expressed in adult and fetal tissues and encodes spastin, an ATPase of the AAA family. We have now identified four novel SPG4 mutations in German AD-HSP families, including one large family for which anticipation had been proposed. Mutations include one frame-shift and one missense mutation, both affecting the Walker motif B. Two further mutations affect two donor splice sites in introns 12 and 16, resp. RT-PCR anal. of both donor splice site mutations revealed exon skipping and reduced stability of aberrantly spliced SPG4 mRNA. All mutations are predicted to cause loss of functional protein. In conclusion, we confirm in German families that SPG4 mutations cause AD-HSP. Our data suggest that SPG4 mutations exert their dominant effect not by gain of function but by haploinsufficiency. If a threshold level of spastin were crit. for axonal preservation, such threshold dosage effects might explain the variable expressivity and incomplete penetrance of SPG4-linked AD-HSP.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:787108 CAPLUS
DOCUMENT NUMBER: 134:235556
TITLE: Mutation analysis of the spastin gene (SPG4) in patients with hereditary spastic paraparesis
AUTHOR(S): Lindsey, J. C.; Lusher, M. E.; McDermott, C. J.; White, K. D.; Reid, E.; Rubinsztein, D. C.; Bashir, R.; Hazan, J.; Shaw, P. J.; Bushby, K. M. D.
CORPORATE SOURCE: Human Molecular Genetics Unit, School of Biochemistry and Genetics, University of Newcastle upon Tyne, Newcastle upon Tyne, NE2 4AA, UK
SOURCE: Journal of Medical Genetics (2000), 37(10), 759-765
CODEN: JMDGAE; ISSN: 0022-2593
PUBLISHER: BMJ Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Background: hereditary spastic paraparesis is a genetically heterogeneous condition. Recently, mutations in the spastin gene were reported in families linked to the common SPG4 locus on chromosome 2p21-22. Objectives: To study a population of patients with hereditary spastic paraparesis for mutations in the spastin gene (SPG4) on chromosome 2p21-22. Methods: DNA from 32 patients (12 from families known to be linked to SPG4) was analyzed for mutations in the spastin gene by single strand conformational polymorphism anal. and sequencing. All patients were also examd. clin. Results: Thirteen SPG4 mutations were identified, 11 of which are novel. These mutations include missense, nonsense, frameshift, and splice site mutations, the majority of which affect the AAA cassette. The authors also describe a nucleotide substitution outside this conserved region which appears to behave as a recessive mutation. Conclusions: Recurrent mutations in the spastin gene are uncommon. This reduces the ease of mutation detection as a part of the diagnostic work up of patients with hereditary spastic paraparesis. The authors' findings have important implications for the presumed function of spastin and schemes for mutation detection in HSP patients.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:704318 CAPLUS

DOCUMENT NUMBER: 134:1612[redacted]
TITLE: Intrafam[redacted]al variability in hereditary s[redacted]tic paraplegia associated with an SPG4 gene mutation
AUTHOR(S): Santorelli, F. M.; Patrono, C.; Fortini, D.; Tessa, A.; Comanducci, G.; Bertini, E.; Pierallini, A.; Amabile, G. A.; Casali, C.
CORPORATE SOURCE: Molecular Medicine IRCCS-Bambino Gesu, "La Sapienza" University, Rome, 00165, Italy
SOURCE: Neurology (2000), 55(5), 702-705
CODEN: NEURAI; ISSN: 0028-3878
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors studied a family with pure autosomal dominant spastic paraplegia (ADHSP) that showed a marked intrafamilial variability in both age at onset and clin. severity, ranging from severe congenital presentation to mild involvement after age 55. They found a novel mutation in the SPG4 gene, which segregates with the disease in six patients. The mutation affects the consensus donor splice site of SPG4 intron 16, resulting in a premature termination codon at amino acid 578. The data confirm the pathol. significance of SPG4 mutations in pure ADHSP and add to the list of known SPG4 allelic variants.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:185483 CAPLUS
DOCUMENT NUMBER: 133:100324
TITLE: Spectrum of SPG4 mutations in autosomal dominant spastic paraplegia
AUTHOR(S): Fonknechten, Nuria; Mavel, Delphine; Byrne, Paula; Davoine, Claire-Sophie; Cruaud, Corinne; Boentsch, Dominikus; Samson, Delphine; Coutinho, Paula; Hutchinson, Michael; McMonagle, Paul; Burgunder, Jean-Marc; Tartaglione, Antonio; Heinzlef, Olivier; Feki, Imed; Deufel, Thomas; Parfrey, Nollaig; Brice, Alexis; Fontaine, Bertrand; Prud'homme, Jean-Francois; Weissenbach, Jean; Durr, Alexandra; Hazan, Jamile
CORPORATE SOURCE: Genoscope, Evry, 91000, Fr.
SOURCE: Human Molecular Genetics (2000), 9(4), 637-644
CODEN: HMGEE5; ISSN: 0964-6906
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Autosomal dominant hereditary spastic paraplegia (AD-HSP) is a group of genetically heterogeneous neurodegenerative disorders characterized by progressive spasticity of the lower limbs. Five AD-HSP loci have been mapped to chromosomes 14q, 2p, 15q, 8q and 12q. The SPG4 locus at 2p21-p22 has been shown to account for .apprx.40% of all AD-HSP families. SPG4 encoding spastin, a putative nuclear AAA protein, has recently been identified. Here, sequence anal. of the 17 exons of SPG4 in 87 unrelated AD-HSP patients has resulted in the detection of 34 novel mutations. These SPG4 mutations are scattered along the coding region of the gene and include all types of DNA modification including missense (28%), nonsense (15%) and splice site point (26.5%) mutations as well as deletions (23%) and insertions (7.5%). The clin. anal. of the 238 mutation carriers revealed a high proportion of both asymptomatic carriers (14/238) and patients unaware of symptoms (45/238), and permitted the redefinition of this frequent form of AD-HSP.
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:277076 BIOSIS
DOCUMENT NUMBER: PREV200000277076
TITLE: Phenotype of SPG4 mutations in autosomal dominant hereditary spastic paraparesis.
AUTHOR(S): McMonagle, Paul (1); Byrne, Paula (1); Fitzgerald, Brendan (1); Stewart, Webb (1); Parfrey, Nollaig (1); Hutchinson, Michael (1)
CORPORATE SOURCE: (1) Dublin Ireland
SOURCE: Neurology, (April 11, 2000) Vol. 54, No. 7 Supp. 3, pp.

A424-A425. pri
Meeting Info.: nd Annual Meeting of the Ameri Academy of Neurology San Diego, CA, USA April 29-May 06, 2000 American Academy of Neurology
. ISSN: 0028-3878.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 23 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:455439 BIOSIS
DOCUMENT NUMBER: PREV200000455439
TITLE: Detailing cognitive impairment of spastin gene carriers in "pure" autosomal dominant HSP.
AUTHOR(S): McMonagle, P. (1); Edgeworth, J.; Byrne, P.; Hutchinson, M.; Burke, T.
CORPORATE SOURCE: (1) St Vincent's Hospital, Dublin Ireland
SOURCE: Journal of Neurology Neurosurgery & Psychiatry, (September, 2000) Vol. 69, No. 3, pp. 420-421. print.
Meeting Info.: Proceedings of the Association of British Neurologists Devon, University of Exeter, England April 05-07, 2000
ISSN: 0022-3050.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 24 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:488739 BIOSIS
DOCUMENT NUMBER: PREV200000488860
TITLE: Mutation analysis of the spastin gene in hereditary spastic paraplegia type 4: Evidence of aberrant transcript splicing caused by mutations in noncanonical splice site sequences.
AUTHOR(S): Svenson, I. K. (1); Ashley-Koch, A. E. (1); Gaskell, P. C. (1); Riney, T. J. (1); Warner, C.; Farrell, C. D.; Boustany, R.-M. N. (1); Haines, J. L.; Nance, M. A.; Pericak-Vance, M. A. (1); Marchuk, D. A. (1)
CORPORATE SOURCE: (1) Duke University Medical Center, Durham, NC USA
SOURCE: American Journal of Human Genetics, (October, 2000) Vol. 67, No. 4 Supplement 2, pp. 375. print.
Meeting Info.: 50th Annual Meeting of the American Society of Human Genetics Philadelphia, Pennsylvania, USA October 03-07, 2000 American Society of Human Genetics
. ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 25 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:491158 BIOSIS
DOCUMENT NUMBER: PREV200000491279
TITLE: Five novel mutations of spastin gene in chromosome 2-linked autosomal dominant spastic paraplegia (SPG4.
AUTHOR(S): Deng, H.-X. (1); Zhai, H. (1); Chen, W. (1); Hung, W.-Y. (1); Hentati, A. (1); Siddique, T. (1)
CORPORATE SOURCE: (1) Neurology Dept, Northwestern Univ, Chicago, IL USA
SOURCE: American Journal of Human Genetics, (October, 2000) Vol. 67, No. 4 Supplement 2, pp. 372. print.
Meeting Info.: 50th Annual Meeting of the American Society of Human Genetics Philadelphia, Pennsylvania, USA October 03-07, 2000 American Society of Human Genetics
. ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 26 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:488733 BIOSIS
DOCUMENT NUMBER: PREV200000488854
TITLE: Hereditary spastic paraplegia caused by mutations in the SPG4 gene.
AUTHOR(S): Burger, J. J. (1); Fonknechten, N.; Hoeltzenbein, M.;

Neumann, L. (1); Hazan, J.; Reis, A. (1)
CORPORATE SOURCE: (1) Charite Human Genetics, Humboldt Univ, Berlin Germany
SOURCE: American Journal of Human Genetics, (October, 2000) Vol. 67, No. 4 Supplement 2, pp. 372. print.
Meeting Info.: 50th Annual Meeting of the American Society of Human Genetics Philadelphia, Pennsylvania, USA October 03-07, 2000 American Society of Human Genetics
. ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 27 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:490986 BIOSIS
DOCUMENT NUMBER: PREV200000491107
TITLE: Spastin, a new AAA protein, binds to alpha and beta tubulins.
AUTHOR(S): Azim, A. C. (1); Hentati, A. (1); Haque, M. F. U. (1); Hirano, M. (1); Ouachi, K. (1); Siddique, T. (1)
CORPORATE SOURCE: (1) Neurology, Northwestern Medical School, Chicago, IL USA
SOURCE: American Journal of Human Genetics, (October, 2000) Vol. 67, No. 4 Supplement 2, pp. 197. print.
Meeting Info.: 50th Annual Meeting of the American Society of Human Genetics Philadelphia, Pennsylvania, USA October 03-07, 2000 American Society of Human Genetics
. ISSN: 0002-9297.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 28 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:218484 BIOSIS
DOCUMENT NUMBER: PREV200100218484
TITLE: Hereditary spastic paraplegias.
AUTHOR(S): Angelini, C. (1); Pegoraro, E. (1); Molon, A. (1)
CORPORATE SOURCE: (1) Department of Neurology, University of Padova, Padova Italy
SOURCE: European Journal of Neurology, (November, 2000) Vol. 7, No. Supplement 3, pp. 172. print.
Meeting Info.: 5th Congress of the European Federation of Neurological Societies Copenhagen, Denmark October 14-18, 2000
ISSN: 1351-5101.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 29 OF 30 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:350945 BIOSIS
DOCUMENT NUMBER: PREV200000350945
TITLE: Clinical and pathologic findings in hereditary spastic paraparesis with spastin mutation.
AUTHOR(S): White, K. D.; Ince, P. G.; Lusher, M.; Lindsey, J.; Cookson, M.; Bashir, R.; Shaw, P. J.; Bushby, K. M. D. (1)
CORPORATE SOURCE: (1) Department of Human Genetics, 19/20 Claremont Place, Newcastle upon Tyne, NE2 4AA UK
SOURCE: Neurology, (July 12, 2000) Vol. 55, No. 1, pp. 89-94. print.
ISSN: 0028-3878.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Objective: To describe a family with chromosome 2p-linked hereditary spastic paraparesis (HSP) associated with dementia and illustrate the cerebral pathology associated with this disorder. Background: HSP comprises a heterogeneous group of inherited disorders in which the main clinical feature is severe, progressive lower limb spasticity. Nongenetic classification relies on characteristics such as mode of inheritance, age at onset, and the presence or absence of additional neurologic features. Several loci have been identified for autosomal dominant pure HSP. The most common form, which links to chromosome 2p (SPG4), has recently been shown to be due to mutations in spastin, the gene encoding a novel

AAA-containing protein. Results: The authors report four generations of a British family with autosomal dominant HSP in whom haplotype analysis indicates linkage to chromosome 2p. In addition, a missense mutation has been identified in exon 10 of the spastin gene (A1395G). Dementia was documented clinically in one member of the family, two other affected family members were reported to have had late onset memory loss, and a younger affected individual showed evidence of memory disturbance and learning difficulties. Autopsy of the demented patient confirmed changes in the spinal cord typical of HSP and also demonstrated specific cortical pathology. There was neuronal depletion and tau-immunoreactive neurofibrillary tangles in the hippocampus and tau-immunoreactive balloon cells were seen in the limbic and neocortex. The substantia nigra showed Lewy body formation. The pathologic findings are not typical of known tauopathies. Conclusions: The authors confirm that chromosome 2p-linked HSP can be associated with dementia and that this phenotype may be associated with a specific and unusual cortical pathology.

L3 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
ACCESSION NUMBER: 1999:725409 CAPLUS
DOCUMENT NUMBER: 132:48516
TITLE: Spastin, a new AAA protein, is altered in the most frequent form of autosomal dominant spastic paraplegia
AUTHOR(S): Hazan, Jamile; Fonknechten, Nuria; Mavel, Delphine; Paternotte, Caroline; Samson, Delphine; Artiguenave, Francois; Davoine, Claire-Sophie; Cruaud, Corinne; Durr, Alexandra; Wincker, Patrick; Brottier, Philippe; Cattolico, Laurence; Barbe, Valerie; Burgunder, Jean-Marc; Prud'homme, Jean-Francois; Brice, Alexis; Fontaine, Bertrand; Heilig, Roland; Weissenbach, Jean
CORPORATE SOURCE: Genoscope, Evry, Fr.
SOURCE: Nature Genetics (1999), 23(3), 296-303
CODEN: NGENEC; ISSN: 1061-4036
PUBLISHER: Nature America
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Autosomal dominant hereditary spastic paraplegia (AD-HSP) is a genetically heterogeneous neurodegenerative disorder characterized by progressive spasticity of the lower limbs. Among the four loci causing AD-HSP identified so far, the SPG4 locus at chromosome 2p21-p22 has been shown to account for 40-50% of all AD-HSP families. Using a positional cloning strategy based on obtaining sequence of the entire SPG4 interval, the authors identified a candidate gene encoding a new member of the AAA protein family, which the authors named spastin. Sequence anal. of this gene in seven SPG4-linked pedigress revealed several DNA modifications, including missense, nonsense and splice-site mutations. Both SPG4 and its mouse orthologue were shown to be expressed early and ubiquitously in fetal and adult tissues. The sequence homologies and putative subcellular localization of spastin suggest that this ATPase is involved in the assembly or function of nuclear protein complexes.
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 12:24:45 ON 21 MAY 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 12:25:26 ON 21 MAY 2002
L1 134 S SPASTIN
L2 37 S L1 (P) HUMAN (P) GENE
L3 30 DUPLICATE REMOVE L2 (7 DUPLICATES REMOVED)

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	47.57	47.78
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CA SUBSCRIBER PRICE	-4.96	-4.96

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